

Malaria

What is malaria?

Malaria is a serious disease that people can get after being bitten by a certain type of mosquito that is infected with a parasite called *Plasmodium*. Four different types of *Plasmodium* (*P. falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*) affect humans.

Who gets malaria?

Anyone can get malaria while visiting or living in an area where the disease is found. Most cases in the U.S. occur in people arriving from tropical or subtropical areas of the world. According to the World Health Organization, an estimated 216 million cases of malaria occurred in 2010. Maps of countries where malaria is common can be found in the current edition of the CDC Health Information for International Travel at <http://wwwnc.cdc.gov/travel/yellowbook/2012/list/maps.htm>.

How is malaria spread?

The parasite that causes malaria is usually spread by the bite of an infected female *Anopheles* mosquito. It can also be transmitted from a mother to her unborn infant before or during delivery. Rarely, the malaria parasite is spread by blood transfusion or organ transplant.

What are the symptoms of malaria?

Symptoms vary depending on the type of *Plasmodium* involved, but may include high fever, chills, sweats, and headache. In some cases, the illness can progress to severe anemia, kidney and respiratory failure, coma and death. Some types of malaria cause less severe illness, but if not treated the symptoms can continue for weeks or months with episodes of fever and chills. With some types of malaria, relapses of the disease may occur years after treatment that was thought to have been successful.

How soon after exposure do symptoms appear?

The symptoms usually appear 7 to 30 days after the bite of the mosquito, depending on the type of malaria involved. Some strains may not cause symptoms for 10 months or even longer.

How is malaria diagnosed?

Malaria can be suspected based on the patient's travel history, symptoms, and the findings of a medical examination. To confirm the diagnosis, laboratory tests must be done on samples of blood. The most common test involves identifying the malaria parasites by examining a specially-prepared and stained drop of the patient's blood under the microscope.

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What is the treatment for malaria?

Doctors can prescribe drugs to treat malaria. Treatment should begin as soon as possible, even if the disease is mild, to prevent complications and possible death. An untreated or inadequately treated person can carry the infection for many years depending on the *Plasmodium* type. Treatment usually depends on the type of malaria, where the disease was acquired, and patient factors, such as age and pregnancy status.

How can malaria be prevented?

The risk for acquiring malaria can be decreased by using mosquito repellents, bed nets, screens, and protective clothing when travelling or living in areas where malaria is present. Travelers to areas where malaria is found may also be advised to take anti-malaria medications to prevent the disease.

How can I get more information about malaria?

- 1) If you have concerns about malaria, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.
- 3) Visit the Centers for Disease Control and Prevention website at <http://www.cdc.gov/malaria/>.